# Water Plan Update 2013

Developing The Highlights Booklet



Investing in Innovation & Infrastructure

Highlights

December 10, 2013

# Water Plan Update 2013 Highlights Workshop Objectives

- Receive Stakeholder Input on the Draft Water Plan Update 2013 Highlights Booklet regarding:
  - Red Flags
  - Glaring Omissions
  - Content Priorities
  - Readability, Utility



# Water Plan Update 2013 Highlights Purpose of the Booklet

- Create an abridged version to the 3,000+ page Water Plan
- Underscore absolute minimum of what must be known to make decisions that move us toward the Update 2013 vision
- Move voters and policy-makers to action



# Water Plan Update 2013 Highlights Primary Audiences

- State Legislature
- State government agencies
- Local and regional water managers
- Tribal and federal governments
- Academic Institutions
- Local land use decision-makers
- Non-government organizations
- General public/voters



## What we've heard



## What we heard at the Plenary

- Be aggressive /influential
- Be specific about powerful threats/challenges
- Convince people that what we have is valuable (and then show that it is threatened)
- Focus on responses, rather than threats
- Build on successes

## What we heard at the Plenary

- Regional summaries
- Finance graphics and the ROI from water investment
- IWM success
- Data and analysis
- Health and safety

## What we heard at the Graphics Workshop, Feb 2012

- Overarching Principles
  - Less words, more pictures.
  - Graphics should have directive messages.
  - The graphics should speak for themselves.
  - Make succinct and use plenty of pointers

## Highlights Structure



## Planned Format

Integrated Water Management California Water Plan Update 2009 | Highlights

Factors of Uncertainty

Conservation

### Water Scenarios 2050: Factors That Shape Our Future

hat will California look like in 2050? Will the population growth keep pace with recent trends? Will the pattern of climate change continue? Will the protection of water quality and endangered species be driven mostly by lawsuits, creating a patchwork of legal requirements? We have no way of predicting the future, but we can construct some plausible scenarios. Future scenarios can be used to help us better understand the implications of future conditions on water management. Update 2009 made significant improvements to the scenarios by considering the potential effect of long-term climate change on future water demands. (See more on climate change in Highlights pages 8 through 11.)

The California Water Plan acknowledges that planning for the future is uncertain and that change will continue to occur. It is not possible to know for certain how population, water demand patterns, environmental conditions, the climate, and many other factors that affect water use and supply may change by 2050. To anticipate change, our approach to water management and planning for the future needs to incorporate consideration of uncertainty, risk, and sustainability.

Update 2009 uses three future scenarios for year 2050 to illustrate how the water community would need to respond to a variety of future conditions. Regions respond by implementing a mix of resource management strategies. (See more about resource management strategies on Highlights pages 18 and 19 and examples of regional strategies on Highlights pages 20 and 21.) The title of each scenario—Current Trends, Slow & Strategic Growth, and Expansive Growth-tells us something about how different factors, like population, irrigated farmland, or background water conservation (plumbing code changes, natural replacement, actions water users implement on their own, etc.), are assumed to change over time. These are factors over which the water community has little control yet affect future water demand for the urban, agricultural, and environmental sectors.

An uncertain future to which the water community will need to respond

#### Current Trends

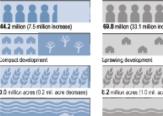
Recent trends are assumed to continue into the future. Regulations are not coordinated or comprehensive, creating uncertainty for planners and managers. The state continues to face lawsuits, from flood damages to water quality and endangered species protections.

#### Slow & Strategic Growth

Private, public, and governmental institutions form alliances to provide for efficient planning and development that is less resources intensive than current conditions. State government implements comprehensive and coordinated regulatory programs to improve water quality. protect fish and wildlife, and protect communities from flooding.

#### Expansive Growth

Future conditions are more resource intensive than existing conditions. Protection of water quality and endangered species is driven mostly by lawsuits. State government has responded on a case-by-case basis, creating a patchwork of regulations and uncertainty for planners and water managers.



The charts at the bottom of this page show net change in statewide water demand 69.8 million (33.1 million increase) between 2005 and 2050 for each scenario. (See pages 16 and 17 for potential water demand changes for each hydrologic region.)

8.2 million acres (1.0 mil. acre decrease) 0.6 aridhmal Ma

\* Department of Finance population projection

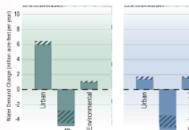
Combined Water Demand Change by Scenario

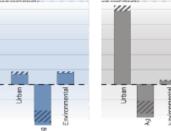
#### Population 59.5 million\* (22.8 million increase) Land Use Continued development Irrigated Crop Area 8.6 million acres (0.7 mil. acre decrease) Environmental Water 1.0 artistional MAI Background Water

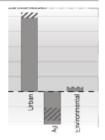
000 Compact development 9.0 million acres (0.2 mil. acre decrease)

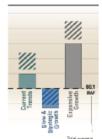
5% more efficient

#### 2050 Water Demand Changes by Scenario







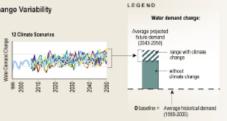


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#### Water Demand Changes and Climate Change Variability

represents future water demand change (the difference between the average demands for 2043-2050 and 1998-2005.) This change could be either an increase (above baseline) or a decrease (below baseline) in water use.

Climate change adds another dimension of variability to demand changes. In figure at right, historical period shows actual demand (blue line). Each colored line represents 1 of 12 climate scenarios. This variability is represented on the water demand change graph by the hatched area.



10% more efficient

Read more on scenarios and how they were used in estimating future water demand in Volume 1, Chapter 5 Managing an Uncertain Future

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## **Update 2013 Highlights**

### Proposed "Takeaway" Messages of Update 2013 Highlights Booklet

- (1) **Water is California's Life Blood**. Every living thing in the state, as well as our economy, depends on reliable, clean water to thrive.
- (2) California's Complex Water Resources System is in Crisis. Our interconnected system of water resources natural and manmade is severely threatened on many fronts, with significant risks to our health and safety and economic well-being.
- (3) A Diverse Portfolio Approach is Required to Address the Challenges. The complexity of our water resources systems and the associated risks demand a diverse set of actions and investment strategies. There is no silver bullet.
- (4) The Solution Requires Integration, Alignment and Investment. Commitment to the integrated water management approach, alignment towards a common vision, and stable financing are essential to ensure future resiliency.
- (5) We All Have a Role to Play in Securing Our Future. Decision makers, resource agencies, water resource managers and interest groups at the State, federal, Tribal and local levels need to actively engage in the solution.

### Structure

- Introductory Message
- 2. Integrated Water Management Primer
- 3. Update 2013 and the "Takeaway" Messages
- 4. Water: The Essence of Life for California
- 5. California Water Today: the Lifeblood for Our State
- A Call for Action: Ignore at Our Own Peril
- 7. The Future is Uncertain
- 8. California's Water: Charting a Future for Resiliency
- 9. California Vision 2050: The Desired Future For Water
- 10. Three Themes of Update 2013
- **11.** Funding Integrated Water Management

### **Questions for Reviewers:**

As a reader, does each section of the Highlights tell you:

- Why you should care?
- What you should **know**?
- What you should **do**?

## **Document Walk-Through**